

IN THE CLAIMS:

1. (Cancelled)

2. (Previously Presented) A reproducing apparatus for reproducing information recorded on a recording medium, comprising:

a laser light to irradiate a beam to the recording medium;

a detector to detect an optical change from the recording medium; and

an equalization circuit for executing an equalization processing to a reproducing signal generated by the optical change,

wherein the equalization circuit has a first amplitude regulation circuit, a first delay circuit and an addition circuit adding an output of the first amplitude regulation circuit to an output of the first delay circuit, and a gain of the first amplitude regulation circuit is varying.

3. (Previously Presented) A reproducing apparatus according to Claim 2, wherein there is a second delay circuit, and the output signal of the second delay circuit is inputted to the first amplitude regulation circuit.

4. (Currently Amended) A reproducing apparatus according to Claim 2, wherein a large gain is used for a short mark, and the a small gain is used for a long mark.

5. (Previously Presented) A reproducing apparatus for reproducing information recorded on a recording medium, comprising:

a laser light to irradiate a beam to the recording medium;
a detector to detect an optical change from the recording medium; and
an equalization circuit for executing an equalization processing to a reproducing signal generated by the optical change,

wherein the equalization circuit has a plurality of amplitude regulation circuits and a plurality of delay circuits, and at least one of the amplitude regulation circuit executes non-linear equalization.

6. (Currently Amended) A reproducing apparatus according to Claim 5, wherein a large gain at the amplitude regulation circuit is used for a short mark, and ~~the~~ a small gain is used for a long mark in non-linear equalization.

7. (New) A reproducing apparatus according to Claim 2, wherein said equalization circuit is one of a 3-tap equalization circuit and a 5-tap equalization circuit, and wherein at least 2 taps each have a first amplitude regulation circuit, a first delay circuit and an addition circuit adding an output of the first amplitude regulation circuit to an output of the first delay circuit, and where a gain of the first amplitude regulation circuit is varying.

8. (New) A reproducing apparatus according to Claim 2, wherein said amplitude regulation circuit accomplishes amplitude regulation by changing the gain between a plurality of predetermined selectable gains.

9. (New) A reproducing apparatus according to Claim 5, wherein said equalization circuit is one of a 3-tap equalization circuit and a 5-tap equalization circuit, and wherein at least 2 taps each have an amplitude regulation circuit, a delay circuit and an addition circuit adding an output of the amplitude regulation circuit to an output of the delay circuit, and where a gain of the amplitude regulation circuit is varying.

10. (New) A reproducing apparatus according to Claim 5, wherein said amplitude regulation circuit accomplishes amplitude regulation by changing the gain between a plurality of predetermined selectable gains.

11. (New) A system comprising:
at least one of a power supply, a processor, an input unit and an output unit;
and
a reproducing apparatus for reproducing information recorded on a recording medium, including:

- a laser light to irradiate a beam to the recording medium;
- a detector to detect an optical change from the recording medium; and
- an equalization circuit for executing an equalization processing to a reproducing signal generated by the optical change,

wherein the equalization circuit has a first amplitude regulation circuit, a first delay circuit and an addition circuit adding an output of the first amplitude regulation circuit to an output of the first delay circuit, and a gain of the first amplitude regulation circuit is varying.

12. (New) A system according to Claim 11, wherein there is a second delay circuit, and the output signal of the second delay circuit is inputted to the first amplitude regulation circuit.

13. (New) A system according to Claim 11, wherein a large gain is used for a short mark, and a small gain is used for a long mark.

14. (New) A system comprising:
at least one of a power supply, a processor, an input unit and an output unit;
and
a reproducing apparatus for reproducing information recorded on a recording medium, including:
a laser light to irradiate a beam to the recording medium;
a detector to detect an optical change from the recording medium; and
an equalization circuit for executing an equalization processing to a reproducing signal generated by the optical change,
wherein the equalization circuit has a plurality of amplitude regulation circuits and a plurality of delay circuits, and at least one of the amplitude regulation circuit executes non-linear equalization.

15. (New) A system according to Claim 14, wherein a large gain at the amplitude regulation circuit is used for a short mark, and a small gain is used for a long mark in non-linear equalization.

16. (New) A system according to Claim 11, wherein said equalization circuit is one of a 3-tap equalization circuit and a 5-tap equalization circuit, and wherein at least 2 taps each have a first amplitude regulation circuit, a first delay circuit and an addition circuit adding an output of the first amplitude regulation circuit to an output of the first delay circuit, and where a gain of the first amplitude regulation circuit is varying.

17. (New) A system according to Claim 11, wherein said amplitude regulation circuit accomplishes amplitude regulation by changing the gain between a plurality of predetermined selectable gains.

18. (New) A system according to Claim 14, wherein said equalization circuit is one of a 3-tap equalization circuit and a 5-tap equalization circuit, and wherein at least 2 taps each have an amplitude regulation circuit, a delay circuit and an addition circuit adding an output of the amplitude regulation circuit to an output of the delay circuit, and where a gain of the amplitude regulation circuit is varying.

19. (New) A system according to Claim 14, wherein said amplitude regulation circuit accomplishes amplitude regulation by changing the gain between a plurality of predetermined selectable gains.